abcam

Product datasheet

Anti-Hsp27 (phospho S86) antibody ab17938

★★★★★ 2 Abreviews 3 References 2 Images

Overview

Product name	Anti-Hsp27 (phospho S86) antibody
Description	Rabbit polyclonal to Hsp27 (phospho S86)
Host species	Rabbit
Specificity	Lysates prepared from NIH3T3 cells were immunoblotted in the presence of non-phosphopeptide corresponding to the immunogen, a generic phosphoserine-containing peptide or the phosphopeptide immunogen. The data show that only the peptide corresponding to the mouse phospho S86 HSP27 blocks the antibody signal, thereby demonstrating the specificity of the antibody. The signal was completely removed by lambda phosphatase treatment demonstrating that the antibody interacts specifically with the phosphorylated protein.
Tested applications	**Suitable for:** WB, ICC
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide corresponding to Mouse Hsp27 (phospho S86).
Positive control	WB: NIH/3T3 cells. ICC: HeLa cells.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.30 Preservative: 0.05% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.1% BSA
Purity	Immunogen affinity purified
Purification notes	The antibody has been negatively preadsorbed using a non-phosphopeptide corresponding to the

site of phosphorylation to remove antibody that is reactive with non-phosphorylated HSP25 (the mouse homolog of human HSP27). The final product is generated by affinity chromatography using an HSP25-derived peptide that is phosphorylated at serine 86.

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab17938 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (1)	1/1000. Detects a band of approximately 23 kDa (predicted molecular weight: 23 kDa).
ICC		1/250.

Target

Function Involved in stress resistance and actin organization.

Tissue specificity Detected in all tissues tested: skeletal muscle, heart, aorta, large intestine, small intestine, stomach, esophagus, bladder, adrenal gland, thyroid, pancreas, testis, adipose tissue, kidney, liver, spleen, cerebral cortex, blood serum and cerebrospinal fluid. Highest levels are found in the heart and in tissues composed of striated and smooth muscle.

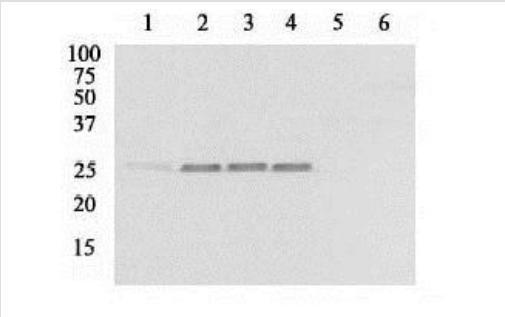
Involvement in disease Defects in HSPB1 are the cause of Charcot-Marie-Tooth disease type 2F (CMT2F) [MIM:606595]. CMT2F is a form of Charcot-Marie-Tooth disease, the most common inherited disorder of the peripheral nervous system. Charcot-Marie-Tooth disease is classified in two main groups on the basis of electrophysiologic properties and histopathology: primary peripheral demyelinating neuropathy or CMT1, and primary peripheral axonal neuropathy or CMT2. Neuropathies of the CMT2 group are characterized by signs of axonal regeneration in the absence of obvious myelin alterations, normal or slightly reduced nerve conduction velocities, and progressive distal muscle weakness and atrophy. Nerve conduction velocities are normal or slightly reduced. CMT2F onset is between 15 and 25 years with muscle weakness and atrophy usually beginning in feet and legs (peroneal distribution). Upper limb involvement occurs later. CMT2F inheritance is autosomal dominant.
Defects in HSPB1 are a cause of distal hereditary motor neuronopathy type 2B (HMN2B) [MIM:608634]. Distal hereditary motor neuronopathies constitute a heterogeneous group of neuromuscular disorders caused by selective impairment of motor neurons in the anterior horn of the spinal cord, without sensory deficit in the posterior horn. The overall clinical picture consists of a classical distal muscular atrophy syndrome in the legs without clinical sensory loss. The disease starts with weakness and wasting of distal muscles of the anterior tibial and peroneal compartments of the legs. Later on, weakness and atrophy may expand to the proximal muscles of the lower limbs and/or to the distal upper limbs.

Sequence similarities Belongs to the small heat shock protein (HSP20) family.

Post-translational modifications Phosphorylated in MCF-7 cells on exposure to protein kinase C activators and heat shock.

Cellular localization	Cytoplasm. Nucleus. Cytoplasm > cytoskeleton > spindle. Cytoplasmic in interphase cells. Colocalizes with mitotic spindles in mitotic cells. Translocates to the nucleus during heat shock and resides in sub-nuclear structures known as SC35 speckles or nuclear splicing speckles.

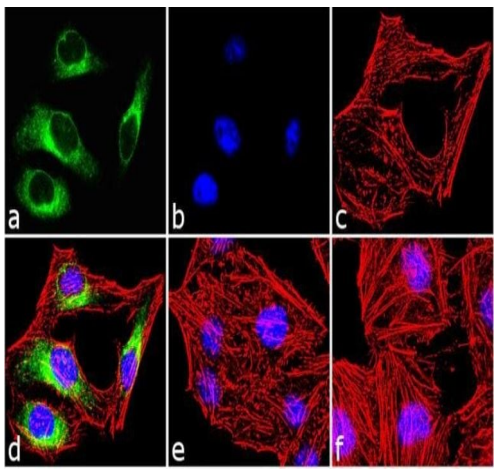
Images



Western blot - Anti-Hsp27 (phospho S86) antibody (ab17938)

Hsp25 (phospho S86) antibody image 6534.

Western blot using ab17938 on NIH3T3 cells treated with anisomycin.
Lane 1: unstimulated cells
Lane 2: cells stimulated with anisomycin
Lane 3: cells stimulated with anisomycin. Antibody blocked with the non-phosphopeptide corresponding to the immunogen
Lane 4: cells stimulated with anisomycin. Antibody blocked with generic phosphoserine-containing peptide
Lane 5: cells stimulated with anisomycin. Antibody blocked with the phosphopeptide immunogen
Lane 6: cells stimulated with anisomycin and treated with lambda phosphatase
10-30 µg of cell lysate can be loaded when using similar lysates with this antibody. Samples were run using SDS-PAGE on a 10% polyacrylamide gel and transferred to PVDF. Membranes were blocked with a 5% BSA-TBST buffer for one hour at room temperature, then incubated with ab17938 for one hour at room temperature in 3% BSA-TBST buffer, following prior incubation with blocking



Immunocytochemistry - Anti-Hsp27 (phospho S86) antibody (ab17938)

HeLa cells stained for Hsp27 (green) using ab17938 at 1/250 dilution in ICC/IF. It was followed by Goat anti-Rabbit IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate at 1/2000 dilution for 45 minutes at room temperature (Panel a). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI. F-actin (Panel c: red) was stained with Rhodamine Phalloidin at 1/300 dilution. Panel d is a merged image showing cytoplasmic localization. Panel e is untreated cell with no signal. Panel f is a no primary antibody control.

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